

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF ARUNDEL MILLS CIRCLE AND BASS PRO DRIVE IN ANNE ARUNDEL COUNTY. ARUNDEL MILLS CIRCLE IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA THREE-PHASE, FULLY-ACTUATED MODE WITH SPLIT PHASING FOR ARUNDEL MILLS CIRCLE.

CONTROLLER REQUIREMENTS

A NEW, EIGHT-PHASE, FULLY-ACTUATED CONTROLLER WITH SYSTEM PACKAGE, VIDEO INTERFACE EQUIPMENT AND ONE, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIER HOUSED IN A BASE MOUNTED CABINET WILL BE INSTALLED.

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE FURNISHED BY THE SHA AND INSTALLED BY THE CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
NONE		

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR. ALL EQUIPMENT SHALL HAVE CATALOG CUTS SUBMITTED TO THE OFFICE OF TRAFFIC AND SAFETY FOR APPROVAL PRIOR TO INSTALLATION.

QUANTITY	DESCRIPTION
LS	MAINTENANCE OF TRAFFIC
3 CY	TEST PIT EXCAVATION
650 LF	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS - ANY WIDTH
5 EA	REMOVAL OF EXISTING PERMANENT PAVEMENT MARKING ARROWS
7 EA	REMOVAL OF EXISTING PERMANENT PAVEMENT MARKING WORDS
550 LF	5 INCH WHITE HEAT APPLIED THERMOPLASTIC PAVEMENT MARKING
575 LF	5 INCH YELLOW HEAT APPLIED THERMOPLASTIC PAVEMENT MARKING
280 LF	10 IN. HEAT APPLIED WHITE THERMOPLASTIC PAVEMENT MARKINGS
325 LF	12 IN. HEAT APPLIED WHITE THERMOPLASTIC PAVEMENT MARKINGS
65 LF	24 IN. WHITE HEAT APPLIED WHITE THERMOPLASTIC PAVEMENT MARKINGS
11 EA	HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING 'ARROW'
3 EA	HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING 'ONLY'
1 EA	CONTROLLER AND CABINET - BASE MOUNT
1 EA	VIDEO INTERFACE EQUIPMENT
1 EA	FOUR-CHANNEL, TIME- DELAY-OUTPUT LOOP DETECTOR AMPLIFIER
23 EA	12 INCH LED SIGNAL HEAD SECTION
8 CY	CONCRETE FOUNDATION FOR SIGNAL
1 EA	27 FT. TWIN MAST ARM POLE & 50FT/50 FT MAST ARMS
1 EA	15 FT. LIGHTING ARM WITH 250 WATT HPSV LUMINAIRE
7 EA	ELECTRICAL HANDHOLE
20 LF	1 IN. FLEXIBLE, LIQUID-TIGHT CONDUIT - DETECTOR SLEEVE
30 LF	2 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED
70 LF	3 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED
715 LF	4 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED
130 LF	4 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT- BORED
3 EA	VIDEO DETECTION CAMERA AND CABLE
222 LF	WOOD SIGN SUPPORTS 4 IN. X 4 IN.
1 EA	METERED SERVICE PEDESTAL EMBEDDED
325 LF	12-PAIR COMMUNICATION CABLE
50 LF	ELECTRICAL CABLE 1 - CONDUCTOR (NO. 4 A.W.G.) - THHN /THWN
80 LF	ELECTRICAL CABLE 5 - CONDUCTOR (NO. 14 A.W.G.)
640 LF	ELECTRICAL CABLE 7 - CONDUCTOR (NO. 14 A.W.G.)
80 LF	ELECTRICAL CABLE 2 - CONDUCTOR (NO. 12 A.W.G.)
460 LF	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
5 EA	3/4 IN. X 10 FT. GROUND ROD
75 LF	SAW CUT FOR SIGNAL
4 EA	MICRO-LOOP PROBE
3 EA	R3-SL (30" X 36") SIGN - MAST ARM MOUNT
1 EA	R3-6L (30" X 36") SIGN - MAST ARM MOUNT
2 EA	R3-7R (30" X 30") SIGN - GROUND MOUNT
1 EA	R3-8A (30" X 30") SIGN - GROUND MOUNT
2 EA	R3-8L (48" X 30") SIGN - GROUND MOUNT
1 EA	R4-7(I) (18" X 30") SIGN - GROUND MOUNT
8 EA	REMOVE EXISTING GROUND MOUNTED SIGN AND SUPPORTS
3 EA	W11-2 (30" X 30") SIGN - GROUND MOUNT
3 EA	W16-7P(L) (24" X 12") SIGN - GROUND MOUNT
1 EA	15 FT. BREAKAWAY PEDESTAL POLE

EQUIPMENT LIST "C"

C. EXISTING EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE STATE HIGHWAY ADMINISTRATION, 7491 CONNELLEY DRIVE, HANOVER, MARYLAND 21076. THE CONTRACTOR SHALL NOTIFY THE SHA AT (410) 787-7652 AT LEAST THREE DAYS IN ADVANCE OF DELIVERY.

ITEM NO.	QUANTITY	DESCRIPTION
NONE		

ALL SIGNAL EQUIPMENT TO BE REMOVED AND NOT RETURNED TO THE SHA SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

CONTACT PERSONS FOR DISTRICT 5 ARE AS FOLLOWS:

MRS. KIM TRAN  
ASSISTANT DISTRICT ENGINEER - TRAFFIC  
(410) 841-1003

MR. JOHN MAYS  
ASSISTANT DISTRICT ENGINEER - MAINTENANCE  
(410) 841-1002

MR. JOE HORTY  
UTILITY ENGINEER  
(410) 841-1005

CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY

MR. RICHARD DAFF, SR.  
CHIEF, TRAFFIC OPERATIONS  
(410) 787-7630

MR. EUGENE BAILEY  
TEAM LEADER SIGN OPERATIONS  
(410) 787-7676

MR. ROBERT SNYDER  
ASSISTANT DIVISION CHIEF,  
TRAFFIC OPERATIONS  
(410) 787-7631

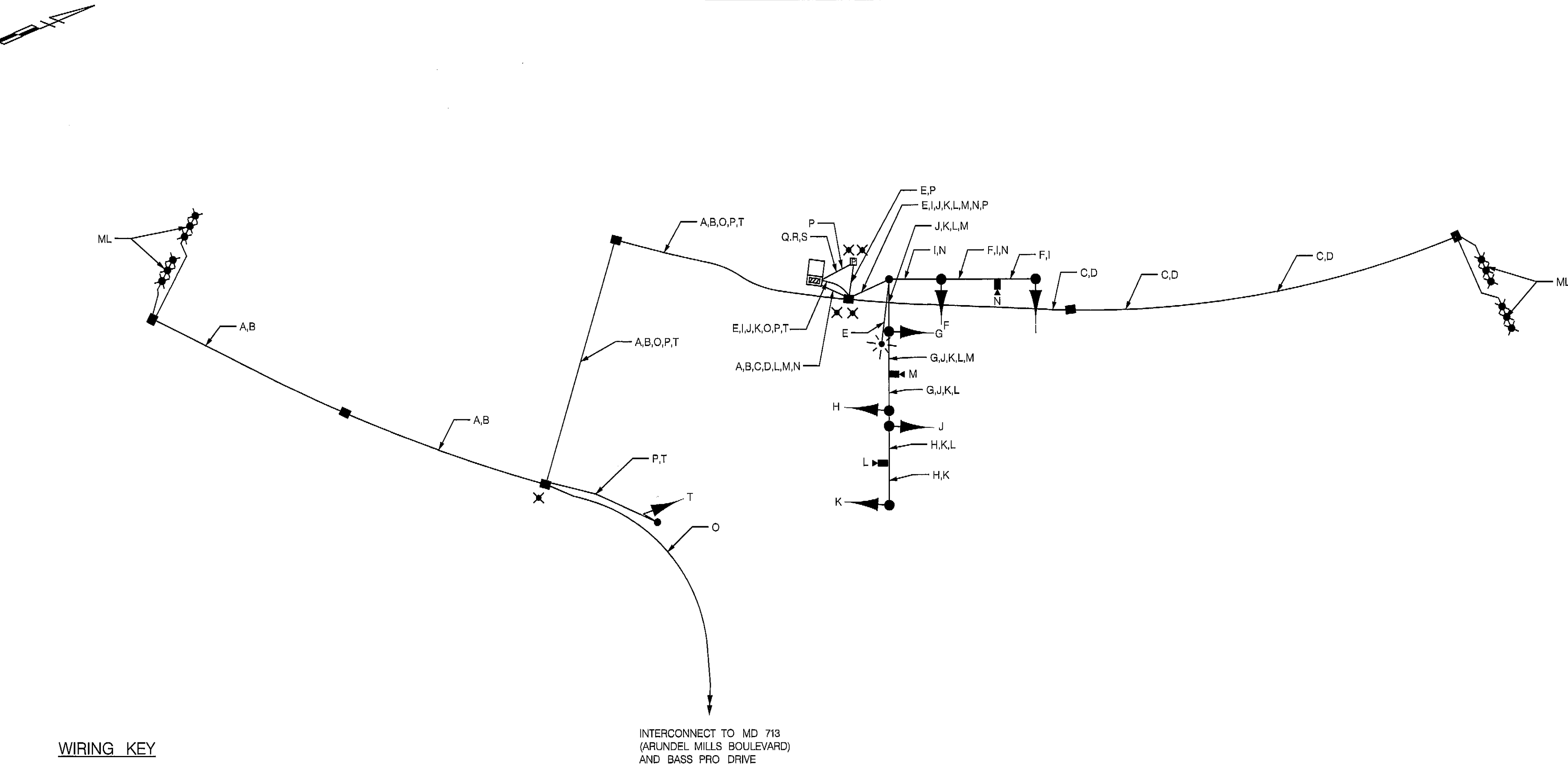
MR. MIKE STOCKER  
SUPPLY OFFICE  
SIGNAL SHOP WAREHOUSE  
(410) 787-7666

MR. ED RODENHIZER  
CHIEF - SIGNAL OPERATIONS SECTION  
(410) 787-7652

PHASE CHART

	1	2	3	4	5	6	7	
	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	
PHASE 1	G	G	R	R	R	R	R	
1 CHANGE	Y	Y	R	R	R	R	R	
PHASE 2	R	R	G	G	G	R	R	
2 CHANGE	R	R	Y	Y	Y	R	R	
PHASE 4	R	R	R	R	R	G	G	
4 CHANGE	R	R	R	R	R	Y	Y	
FLASHING OPERATION	FLY	FLY	FLY	FLY	FLY	FLR	FLR	

WIRING DIAGRAM



WIRING KEY

A-D	MICRO-LOOP PROBE LEAD-IN
E	2-CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.) TRAY CABLE
F-H	5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
I-K	7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
L-N	VIDEO DETECTION CABLE
O	12-PAIR VOICE GRADE INTERCONNECT CABLE
P	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
Q-S	1-CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)
T	7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
ML	MICRO-LOOP PROBE
X	GROUND ROD
□	METER SERVICE PEDESTAL

TRAFFIC CONCEPTS, INC.

325 Gambrills Road  
Suite B  
Gambrills, MD 21054  
(410) 923-7101  
FAX: (410) 923-6473  
EMAIL: TRAFFIC@TRAFFIC-CONCEPTS.COM

FILE PATH: M:\2400\2475\Signals\Arundel Mills Cr@Bass Pro Drive\2-1-11.dgn  
DATE: Tuesday, July 12, 2011 AT 11:06 AM

**SHA** STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION  
ARUNDEL MILLS CIRCLE AND BASS PRO DRIVE  
HANOVER, MARYLAND

GENERAL INFORMATION PLAN

SCALE	NONE	DATE	7-12-11	CONTRACT NO.	BW996M82
DESIGNED BY	T. ZAYDEL	COUNTY	ANNE ARUNDEL		
DRAWN BY	T. ZAYDEL	LOGMILE	-		
CHECKED BY	K. SCHMID	T.I.M.S. NO.	K-973		
F.A.P. NO.	NA	TOD NO.			
DRAWING NO.	TS-4801 GI-2	SHEET NO.	3	OF	3